## ABSTRACT OF THE DISCLOSURE

A fluorine-containing cyclic compound is represented by the formula 1:

$$R_2$$
 $CF_3$ 
 $CF_3$ 
 $CF_3$ 
 $CF_3$ 
 $CF_3$ 

wherein each of R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> independently represents a hydrogen, alkyl group, fluorine, fluoroalkyl group or hexafluorocarbinol group,

wherein at least one of the hexafluorocarbinol groups may partly or totally be protected with a protecting group, and

wherein the protecting group is (a) a straight-chain, branched or cyclic hydrocarbon group having a carbon atom number of 1-25 or (b) an aromatic hydrocarbon group and optionally contains a fluorine atom, oxygen atom, nitrogen atom or carbonyl bond.